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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/505,282

08/20/2004

Mikio Ikenishi

330-281

5541

23117 7590 11/12/2008
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EXAMINER

FALASCO, LOUIS V

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

11/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/505,282 | IKENISHI ET AL. | |
| | Examiner | Art Unit | |
| | LOUIS FALASCO | 1794 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 4-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 18, 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Papers Received

1. This application is acknowledged as a Request for Continuing Examination (RCE).
2. The Amendment filed 8/19/08 is acknowledged.
3. The Terminal Disclaimer filed 7/6/07 is acknowledged and approved.

Claims

4. The claims in this application are 1 to 19.
 - Claims 4 to 17 have been withdrawn as drawn to the previously non-elected invention Species.
 - Claims 1 to 3, 18 and 19 are under consideration drawn to the elected Species.

Rejections

Statutory Basis

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Rejections withdrawn

2. The **Double Patenting** rejections made in the previous Office have been withdrawn in response to receipt and acceptance of the 7/6/07 **Terminal Disclaimer**.
3. The rejections under 35 U.S.C. 103(a) over **Nakashima et al** (US 6387510) and **Miyamoto** (US 6395634) taken in view of **Goto et al** (US 6426311) have been withdrawn in response to applicants amendments to the claims.

New Rejections

4. Claims 1 to 3, 18 and 19 are rejected under 35 U.S.C. 103(a) as obvious over **Nakashima et al** (US 2002-0010066) and **Miyamoto** (US 6395634) taken with **Takei et al** (JA 2002-201040 – translation attached).

Nakashima et al teaches the glass substrate for information recording medium with components including SiO₂, Al₂O₃, BaO, Na₂O, K₂O and ZrO₂ (**Nakashima et al** at ¶[0007], [0019]). **Nakashima et al** teaches the composition - showing no Li₂O in the glass as evident in **Nakashima et al** Table 1, ¶[0059], Examples 1-12¹. In **Nakashima et al** the substrate has a *glass transition temperature (T_g)* 600°C or more (**Nakashima et al** at ¶[0013-15], [0017], [0023], [0039]). **Nakashima et al** does not address any *hydrosilicofluoric* acid etch rate for the glass substrate. However **Miyamoto** teaches the instant *hydrosilicofluoric* acid etch rate claimed at ' . . . 0.1 μm/minute or less with *hydrosilicofluoric* acid held at 45°C and a concentration measured at 1.72% by weight . .

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.’ (**Miyamoto** col. 7 lns 4-34, conditions at col. 14 lns 50-55) and **Miyamoto** teaches a *hydrosilicofluoric* acid etch rate through optimal balancing glass components with (hydrosilicofluoric acid etch reacting opposing and eluding components, SiO_2 and Al_2O_3 - **Miyamoto** col. 18 lns 50-57)².

It would have been *prima facie* obvious to one having ordinary skill in the art to adopt the **Miyamoto** etch rate in **Nakashima et al** to achieve improvements in a recording substrate surface **Miyamoto** col. 6 lns 62-64, col. 7 lns 16-17, col. 8 lns 21-24. Furthermore **Takei et al** shows balancing the glass composition avoiding any Li_2O content (**Takei et al** [0008]), for a high density glass recording magnetic media substrate with improved etched surface smoothness (**Takei et al** ¶[0005], [0012], [0019], [0029], [0031]).

- As regard components in claims 2, 3, 18 and 19: see **Nakashima et al** ¶[0017], [0019] and components in Table 1 examples 8 and 18-21 ¶[0059] and components taught by **Takei et al** examples 2-5 at ¶[0027].

Other reference

Kurachi et al (JA 2002-160943 – translation attached) is cited but not applied as further teaching characteristic *hydrosilicofluoric* acid etch rate for glass substrate see (¶[0025-27], [0042-45], also compositions of examples 6 and 7 ¶[0078] note).

¹ More over eliminating of a component, as Li_2O , along with the component's function has long been held insufficient to render claims patentable - MPEP 2144.04

² Claiming an inherent characteristic does not necessarily render a claim patentable MPEP 2112.

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Answer to Arguments

5. Applicant's arguments with respect to the claims under consideration filed 7/6/07 have been fully considered but they are considered moot in view of the new grounds of rejection.

Conclusion

6. The claims under consideration are 1 to 3, 18 and 19.

- No claim has been allowed.

Inquires

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Falasco, whose telephone number is (571)272-1507. The examiner can normally be reached on M-F 10:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol D. Chaney, can be reached at (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LF
10/08

/Louis Falasco/
Examiner, Art Unit 1794

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/Carol Chaney/

Supervisory Patent Examiner, Art Unit 1794